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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,437	11/30/2001	Steven O. Markel	INTE.37US01	3060
43997	7590	03/31/2006	EXAMINER	
OPTV/MOFO C/O MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD, SUITE 300 MCLEAN, VA 22102			RUTTEN, JAMES D	
			ART UNIT	PAPER NUMBER
			2192	

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/007,437	Applicant(s) MARKEL ET AL.	
	Examiner J. Derek Rutten	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/16/02, 12/23/02</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-28 have been examined.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated (described on page 2 lines 1-14, page 4 lines 17-18, and page 5 lines 20-23 of the originally filed specification). See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the trigger and television elements of claims 1, 14, and 28, and further features of claims 2, 4, 6-13, 15, 17, and 19-27 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure

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must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Independent claims 1 and 14 are respectively directed to "A television enhancement programming language" and "A television enhancement file", each of which are simply representations of software, or data structures, per se. Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which

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permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. It should be noted that such data structures must be capable of causing functional change in the computer as reflected by the definition of *data structure*: "a physical or logical relationship among data elements, designed to support specific data manipulation functions." (The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993)). For further information, see Official Gazette, Nov. 22, 2005, 1300 OG 142, "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility", which can be found online at

<<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>>

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 7, 14-16, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,725,421 B1 to Boucher et al. (hereinafter "Boucher") in view of US 2004/0163045 A1 by Hui et al. (hereinafter "Hui").

In regard to claim 1, Boucher discloses:

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A television enhancement programming language (see column 6 line 66 – column 7 line 3) *comprising:*

an XML head element; see column 26 lines 39-42:

4. Non-display elements--The <title> and <meta> elements describe non-audiovisual features of the content. Examples of <meta> information include HTML refreshes, and expire metas.

an object element that provides selection of an object; a property element that specifies an attribute for said object; See column 6 lines 32-35, also column 8 lines 37-41:

Semantic Representation: A description of the characteristics, attributes, logical structure, and features of multimedia elements (or objects) that form a rendered representation of multimedia content, or a portion thereof.

...
Some embodiments of the invention (including VirtualModem™ interactive presentation systems provided by Interactive Channel Technologies, Inc. located in London, Ontario, Canada) use an XML language called VMML to store the semantic content.

a trigger element that specifies a time to render said object in relation to a video program; See column 8 line 51:

5. Timing of multimedia content elements, and

a television element that specifies a size and position at which said video program may be displayed. See column 8 lines 44-50:

1. Location, size, shape, and target indices (such as URI) of hyperlinks,
2. Size and relative location of HTML frames in the rendered image,
3. Size, location, and timing of animated GIFs,
4. Size, location, and type of HTML form elements,

Boucher does not expressly disclose *a modify-property element that modifies said attribute for said object*. However, in an analogous environment, Hui teaches that properties of an XML document can be modified using elements. See paragraph [0075] on page 5:

A SMILE source file according to the present invention may include an <action> element for changing a value of an attribute of another element.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Hui's teaching of modification element with Boucher's properties. One of ordinary skill would have been motivated to change an attribute during execution in order to provide functionality and flexibility (see Hui paragraph [0030] on page 2).

In regard to claim 2, the above rejection of claim 1 is incorporated. Boucher further discloses: *wherein said attribute specifies a URL associated with said object*. See column 17 lines 7-8.

In regard to claim 3, the above rejection of claim 1 is incorporated. Boucher does not expressly disclose: *an action element that provides a name for an action and contains at least one said modify-property element*. However, Hui teaches an action element (i.e. "Event" element) that contains a name for an action and has a modify-property element (i.e. "action" element). See paragraph [0117].

In regard to claim 7, the above rejection of claim 1 is incorporated. Boucher further discloses: *an attribute element that provides platform information for said object element*. See column 8 lines 34-36.

In regard to claim 14, Boucher discloses a file. See paragraph [0065] on page 4. All further limitations have been addressed in the above rejection of claim 1.

In regard to claims 15, 16, and 27, the above rejection of claim 14 is incorporated. All further limitations have been addressed in the above rejection of claims 2, 3, and 7, respectively.

In regard to claim 28, Boucher discloses a computer and a database. See column 2 lines 47-50, and column 10 lines 21-24. All further limitations have been addressed in the above rejection of claim 1.

8. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucher and Hui as applied to claim 1 above, and further in view of US 6,083,276 to Davidson et al. (hereinafter "Davidson").

In regard to claim 4, the above rejection of claim 1 is incorporated. Boucher does not expressly disclose: *an action-call element that allows a first action element to call a second action element*. However, in an analogous environment, Davidson teaches that elements can be used to "call" other elements. See "Table 1" in columns 17 and 18 for a list of examples. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Davidson's call statements with Boucher's action elements. One of ordinary skill would have been motivated to provide a fully configured component-based application using a text-based XML grammar in order to provide a flexible and simple implementation (see Davidson column 4 lines 13-16).

In regard to claim 17, the above rejection of claim 14 is incorporated. All further limitations have been addressed in the above rejection of claim 4.

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9. Claims 5, 12, 13, 18, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucher and Hui as applied to claim 1 above, and further in view of US 20040021679 A1 by Chapman et al. (hereinafter "Chapman").

In regard to claim 5, the above rejection of claim 1 is incorporated. Boucher does not expressly disclose: *a script element that enables the use of a scripting language*. However, in an analogous environment, Chapman teaches the use of a script element. See paragraph [0400] on page 19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Chapman's script element with Boucher's language. One of ordinary skill would have been motivated to use a script to effect full integration (see Chapman paragraph [0291]).

In regard to claim 12, the above rejection of claim 1 is incorporated. Boucher does not expressly disclose: *a page element that contains said object element and said attribute element*. However, Chapman teaches using a page element in a markup language. See paragraph [0121] on page 4. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Chapman's page element with Boucher's objects and attributes. One of ordinary skill would have been motivated to bind elements (see Chapman paragraph [0121]).

In regard to claim 13, the above rejection of claim 12 is incorporated. Boucher does not expressly disclose: *a timed action-call element that provides a call to an action that is not timed to display of a program*. However, Hui teaches using a timer element that is not timed to display of a program. See paragraph [0091] on page 6. It would have

been obvious to one of ordinary skill in the art at the time the invention was made to use Hui's timer with Boucher's language. One of ordinary skill would have been motivated to provide new functionality that permits simple control over objects (See Hui paragraphs [0096] and [0097]).

In regard to claims 18, 24, and 25, the above rejection of claim 14 is incorporated. All further limitations have been addressed in the above rejection of claims 5, 12, and 13, respectively.

10. Claims 6 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucher and Hui as applied to claim 1 above, and further in view of US 6,345,278 B1 to Hitchcock et al. (hereinafter "Hitchcock").

In regard to claim 6, the above rejection of claim 1 is incorporated. Boucher does not expressly disclose: *a field element operable to accept user input*. However, Hitchcock teaches that XML field elements can be used to provide user input. See column 21 line 48. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Hitchcock's field element with Boucher's programming language. One of ordinary skill would have been motivated to provide input to allow user controllable state changes (See Hitchcock column 16 lines 61-63).

In regard to claim 19, the above rejection of claim 14 is incorporated. All further limitations have been addressed in the above rejection of claim 6.

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11. Claims 8-10 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucher and Hui as applied to claim 1 above, and further in view of prior art of record US 5467288 A to Fasciano et al. (hereinafter "Fasciano").

In regard to claim 8, the above rejection of claim 1 is incorporated. Boucher does not expressly disclose: *a timeline element that contains said trigger element and a payload element that defines data embedded in a program broadcast stream*. However, in an analogous environment, Fasciano teaches that timelines contain triggers and payloads. See Fig. 3 and associated text in column 5 lines 21-35. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Fasciano's teaching of a timeline with Boucher's implementation of a markup language. One of ordinary skill would have been motivated to arrange triggers and payloads in a timeline in order to provide a desired sequence of events (see Fasciano column 5 lines 21-22).

In regard to claim 9, the above rejection of claim 8 is incorporated. Boucher does not expressly disclose: *a component element contained within said payload element*. However, Fasciano teaches that payloads contain components. See Fig. 3 elements 84, 86, and 88. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Fasciano's teaching of components with Boucher's language. One of ordinary skill would have been motivated to include a component in order for content to be manipulated.

In regard to claim 10, the above rejection of claim 9 is incorporated. Boucher further discloses: *specifies a file address*. See column 6 lines 61-65. Boucher does not expressly disclose s component that specifies. However, Fasciano's components are directly related to files. See Fasciano column 9 lines 35-38. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Fasciano's teaching of file related components with Boucher's file address specification. One of ordinary skill would have been motivated to store components in a file in order to keep components organized.

In regard to claims 20-22, the above rejection of claim 14 is incorporated. All further limitations have been addressed in the above rejection of claims 8-10, respectively.

12. Claims 11 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucher, Hui and Fasciano as applied to claim 9 above, and further in view of US 6766524 B1 to Matheny et al. (hereinafter "Matheny").

In regard to claim 11, the above rejection of claim 9 is incorporated. Boucher does not expressly disclose: *wherein said component element specifies an expiration attribute*. However, in an analogous environment, Matheny teaches that expiration attributes. See column 5 lines 40-49. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Matheny's expiration attributes with Fasciano's

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component. One of ordinary skill would have been motivated provide an expiration date to restrict rewards (see Matheny column 5 lines 40-42).

In regard to claim 23, the above rejection of claim 21 is incorporated. All further limitations have been addressed in the above rejection of claim 11.

13. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boucher and Hui as applied to claim 14 above, and further in view of US 20020057837 A1 by Wilkinson et al. (hereinafter "Wilkinson").

In regard to claim 26, the above rejection of claim 14 is incorporated. Boucher does not expressly disclose: *wherein said property element specifies a z order value for at least one of said objects*. However, in an analogous environment, Wilkinson teaches that z order is an attributed associated with an object. See paragraph [0091]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Wilkinson's teaching of z order with Boucher's object. One of ordinary skill would have been motivated to provide a z order in order indicate visible areas of an object (see Wilkinson paragraph [0091]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (571) 272-3703. The examiner can normally be reached on T-F 6:00 - 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jdr



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SUPERVISORY PATENT EXAMINER